

FIG. 1A

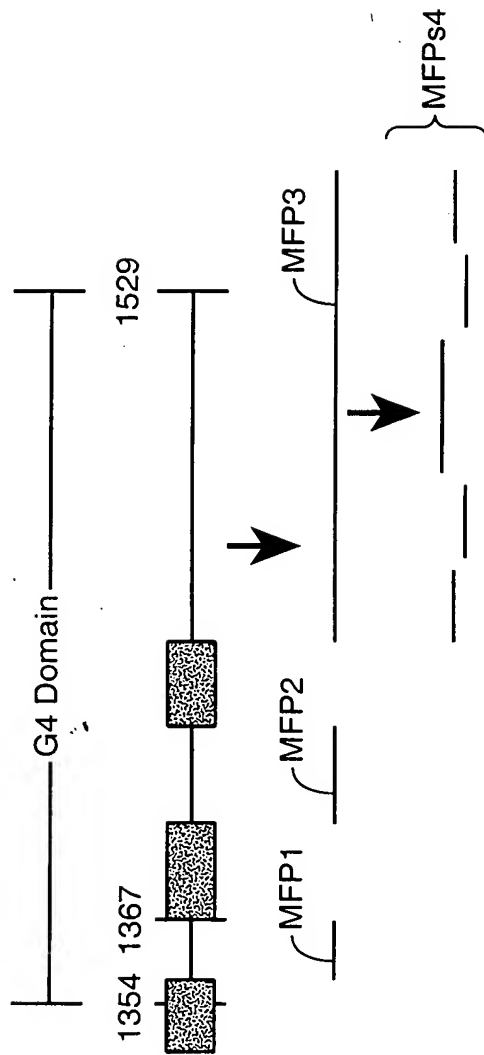


FIG. 1B

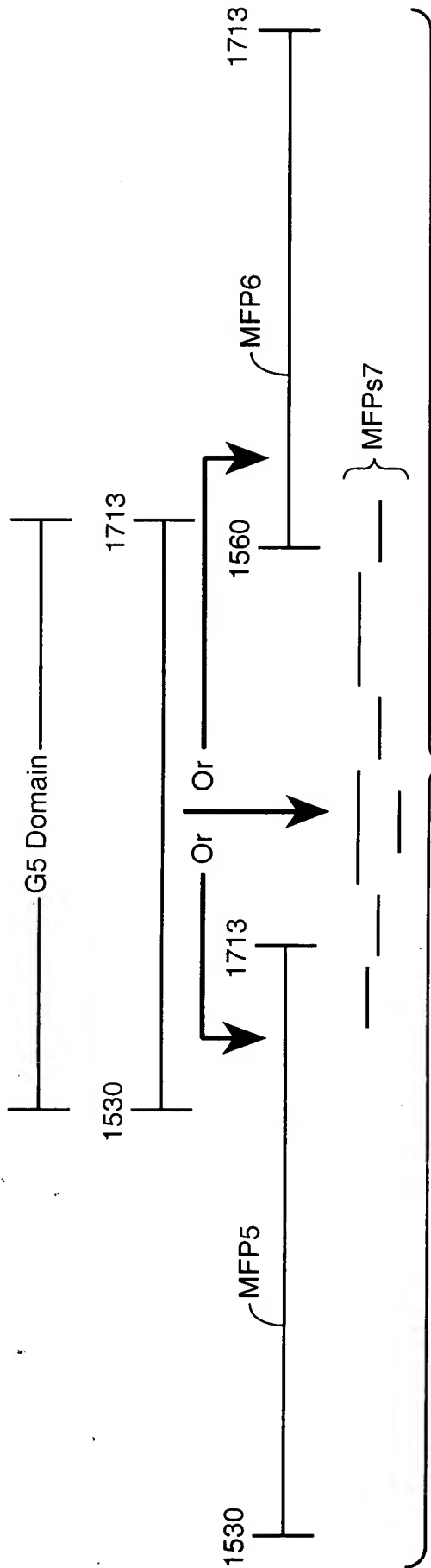


FIG. 1C

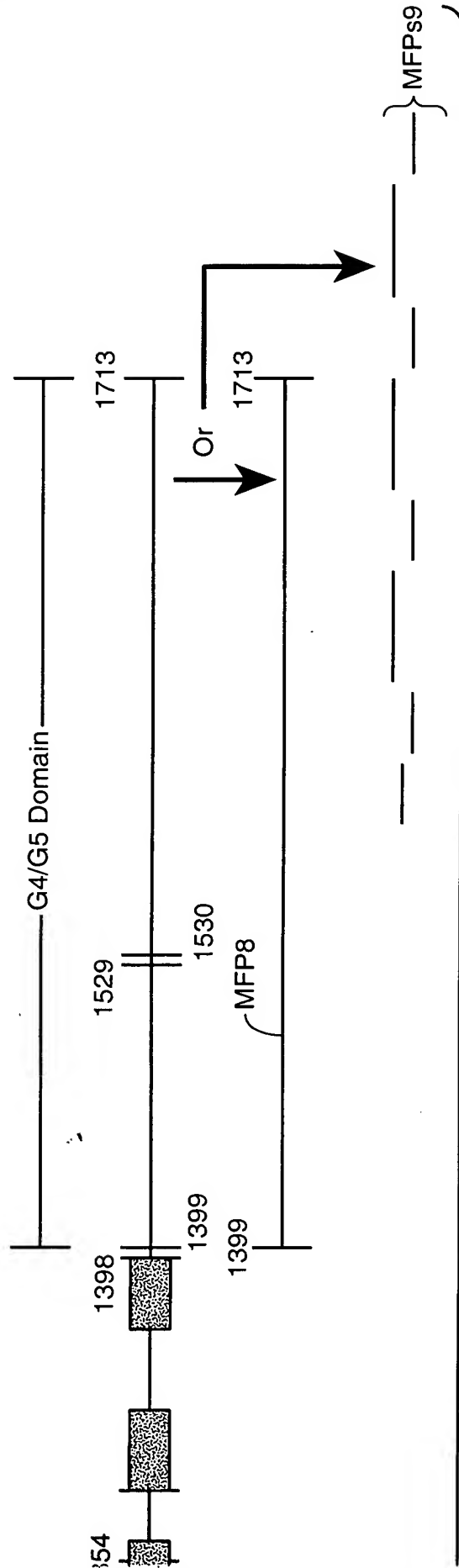


FIG. 1D

1 atgggatggc tgtggatcct tggggcagcc ctggggcagt gtctgggcta cagttcacag
 61 cagcaaaggg tgccatttct tcagcctccc ggtcaaagtc aactgcaagc gagttatgtg
 121 gagtttagac ccagccaggg ttgtagccct ggatactatc gggatcataa aggcttgtat
 181 accggacggg gtgttcctct caattgcaac ggacattcaa atcaatgcca ggatggctca
 241 ggcatatgtg ttaactgtca gcacaacacc gcgggagagc actgtgaacg ctgccaggag
 301 ggctactatg gcaacgccgt ccacggatcc tgcagggcct gcccatgtcc tcacactaac
 361 agctttgcca ctggctgtgt ggtgaatggg ggagacgtgc ggtgctcctg caaagctggg
 421 tacacaggaa cacagtgtga aaggtgtgca ccgggatatt tcgggaatcc ccagaaattc
 481 ggaggtagct gccaaccatg cagttgtaac agcaatggcc agctgggcag ctgtcatccc
 541 ctgactggag actgcataaa ccaagaaccc aaagatagca gccctgcaga agaatgtgat
 601 gattgcgaca gctgtgtgat gaccctcctg aacgacctgg ccaccatggg cgagcagctc
 661 cgcttggtca agtctcagct gcagggcctg agtgccagcg cagggtctct ggagcagatg
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 901 aacaatgtta atcgggcaac acaaagcgca aaagaactgg atgtgaagat taaaaatgtc
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 2821 tgtattgaat tagatgacct caatgaaaat gttctgagct tgtacaactt caaaaaaca
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FIG. 2A-2

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FIG. 2B

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 6421 ctgccagttt aaatgaagca agacaagaac taagtgacaa agtaagagaa ctttccagat
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 7201 gaatacgaga actaattcag caggccagag atgctgccag taaggttgct gtccccatga
 7261 ggttcaatgg taaatctgga gtcgaagtcc gactgccaaa tgacctggaa gatttgaaag
 7321 gatatacatc tctgtccttg tttctccaaa ggcccaactc aagagaaaat gggggactg
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 8941 tcaaccagct gttgcaggac acaccagtgg cctccccaag gagcgtgaag gtgtggcaag
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 9061 ttcccaccag ccacttgcta ttcaagcttc ctcaggagct gctgaaaccc aggtcacagt
 9121 ttgctgtgga catgcagaca acatcctcca gaggactggg gtttcacacg ggcactaaga
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 10441 tgaaactttc atatatgtta aaggattata atttatggaa ttaaaaaatg cagtgtagtc
 10501 cttaaaaaa a

FIG._2C-4

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 SRIVPLENGEVVSLINGRPGAKNFTFSHTLREFTKATNIRLRLRFLRTNTLLGHLISKA
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 TGYNQRRWRPAAWEQSHCEACNCHGHASNCYYDPDVERQQASLNTQGIYAGGGVCIN
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 GDNCEKCAIGYYNFPFCLRIPIFPVSTPSSDPVAGDIKGDCNLEGLVPEICDAHGR
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 LDGEPRPVAVRQPTPAHPVMVDLSGREVELHLRLRIPQVGHYVVVVEYSTAAQLFVV
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 FPHLPQQSSPSVDVLPGVTLKAPQNQVTLRGRVPHLGRYVVFVIHFYQAAHPTFPAQVS
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 EMTGQCRCPPRTVRPQCEVCETHSFSFHPMAGCEGCNCSRRGTIEAAMPECDRDSGQC
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 SRLADVRIQGLYFTTETQRLTLSEVGLLEEASDTGSGRIALAVEICACPPAYAGDSCQGC
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 NNGLANSIRDLSNEYEAKLSDLRLRLQEAQAQKQANGLNQENALGAIQKQVKEIN
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 NISDNMDRIRELIIQARDAASKVAVPMRFNGKSGVEVRLPNDELDLKGYSLSLFLQR
 PNSRENGGTENMFVYMLGNKDASRDYIGMAVVDGQLTCVYNLGDREAELQVDQILTKS
 ETKEAVMDRVKQFQRIYQFARLNYTKGATSSKPEPTPGVYDMDGRNSNTLLNLDPENNVF

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FIG. 2D-2

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5581 cagtgtagtc cttaaaaaaa a

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APGYFGNPQKFGGSCQPCSCNSNGQLGSCHPLTGDCINQEPKDSSPAEECDDCDSCVM
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SKIEGLERELTDLNQEFETLQEKAVNSRKAQTLNANNVNRATQSAKELDVKIKNVIRN
VHILLKQISGTDGEGNNVPSGDFSREWAEAQMMRELNRNRFKGHLREAEADKRESQL
LLNRIRTWQKTHQGENNGLANSIRDSLNEYEAKLSDLRARLQEAQAQKQANGLNQEN
ERALGAIQRQVKEINSLQSDFTKYLTADSSLLQTNIALQIMEKSQKEYEKLAAASLNE
ARQELSDKVRELSRSAGKTSLVEEAEKHARSLOELAKQLEEIKRNASGDELVRCAVDA
ATAYENILNAIKAAEDAAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMT
QKKLKQEVSPALNNLQQTLNIVTVQKEVIDTNLTTLRDGLHGIQRGDIDAMISSAKSM
VRKANDITDEVLDGLNPIQTDVERIKDTYGRQTQNEDFKKALTDADNSVNKLTKLPDL
WRKIESINQQLPLGNISDNMDRIRELIQQARDAASKVAVPMRFNGKSGVEVRLPNDL
EDLKGYSLSLFLQRPNSRENGGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLG
DREAELQVDQILTKSETKEAVMDRVKFQRIYQFARLNYTKGATSSSKPETPGVYDMDGR
NSNTLLNLDPENNVFVYGGYPPDFKLPSRLSFPPYKGCIELDDLNNVLSLYNFKKTF
NLNTTEVEPCRRRKEESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDGRGLLFFAE
NGDRFISLNIEDGKLMVRYKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINV
DVQNTIIDGEVDFDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTSGVVRLNDTVG
VTKKCEDWKLVRASFSRGGQLSFTDLGLPPTDHLQASFGFQTFQPSGILLDHQWT
RNLQVTLEDGYIELSTSDSGSPIFKSPQTYMDGLLHYVSVISDNSGLRLLIDDQLLRN
SKRLKHISRRQSLRLGGSNFEGCISNVFVQRLSLSPEVLDLTSNSLKRDSVSLGGCSL
NKPPFLMLLLKGSTRFNKTKTFRINQLLQDTPVASPRSVKVVQDACSPLPKTQANHGAL
QFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGTKNFSMALYLSKGRIV
FALGTDGKKLRIKSKEKCNDGKWHTVVFHGDGEKGRIVVDGLRAREGSLPGNSTISIR
APVYLGSPPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFVSSCLGGPLEKGIYF
SEEGGHVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLCVYLEAGKVTASM
DSGAGGTSTSVTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPFPASTQE
PLHLGGAPANLTTLRIPVWKSFFGCLRNHVNHIPIVVPVTEALEVQGPVSLNGCPDQ

FIG._2F

1 gtataagagg aagaacacaa aggtttgacag cagccaggca gaacaccaag ggatcaagat
 61 gccgcctaca gtgaggtggt cagcctgggtg cacaggatgg ctgtggatct ttggggcagc
 121 tctgggccag tgcctggggt atggctcaga gcagcaaagg gtagcatttc ttcagcatcc
 181 agggcaaaac catctgcaag caagttatat ggagcttaga cccagccagg gctgtcgccc
 241 aggatactat cgagacatca aaagcttccc tgcgggaagg tctgttccct gcaattgcaa
 301 cggacattca aatagatgcc aagacggctc gggagtgtgc attaactgtc agcacaacac
 361 agctggggag cactgtgagc gttgcaagag gggttactat ggaagcgcca tccatggatc
 421 ctgcagggtt tgcccctgtc ctcacaccaa cagctttgcc actggctgtg ctgtggatgg
 481 aggagctgtg aggtgtgcct gcaaaccggg atacacagga gcacagtgtg agaggtgtgc
 541 accaggatat tttgggaacc cccagaaatt tggaggtagc tgccaaccat gcaattgcaa
 601 cagtaatggc cagtttggca cttgtgatcc cctaactgga gactgtgtaa gccagaacc
 661 caaagatggc agccctgcag aagaatgtga tgactgtgac agctgtgtga tgactctcct
 721 aaatgacttg gtcccatgg gtgaggaact cgccctgggtg aaatcaaaac ttcaggggct
 781 gagtgtgaac actggttctc tggaacagat ccggcatgtg gagatgcagg ccaaggacct
 841 gaggaaccag ctgcttggct tccgttccgc catctccagt cacgggtccc aaatggacgg
 901 cctggaaaaa gaactcagtc atttgtacca ggaattcgaa actttgcaag aaaaggcgca
 961 ggtcaattcc agaaaagcac aaacattata taacaacatc gatacgacaa tccaaaacgc
 1021 caaagagttg gacatgaaga ttaaaaacat acttacgaat gtgcacattc tcctgaagca
 1081 gatcgctcgg ccaggtggag aaggaatgga cttgccgggtg ggcgactggt ccagggagtc
 1141 ggcggaagct cagcgcatgt tgcgggagct gcgaggccga gactttaaaa agcacctcca
 1201 agaagcagag gccagaaaaa tggaagccca gctcttactg aaccgaatca ggacctggct
 1261 ggaatcccac caggtggaga acaatggact gctaaagaat attcgggatt cattaatga
 1321 ttatgaagcc aaacttcagg acctgcgttc cgtgcttcag gaggcggcag cccagggaaa
 1381 gcaggctaca ggcctcaacc acgaaaatga gggggtccta ggagccatcc agagacaaat
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 1501 cctgctgcaa accaacagtc tactgcagcg gatggacacg agccagaagg agtatgaaag
 1561 cttagctgct gctttaaacg gagcaagaca ggaactgaat gaccaagtgc gggaactctc
 1621 cagatccgga ggcaaagcac ccctgggtggc tgaggccgag aagcacgctc agtctttaca
 1681 ggagctggca aagcagctgg aagagataaa gagaaacacc agtggggatg agtcggtgcg
 1741 ctgtgtcgtg gacgtgcca ctgcctatga gagcatcctc aacgccatcc gagcagcaga
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 1861 agatcttccg agaagagcca aaaccctgag ttctgacagc gaggaactgt taaacgaggc
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 1981 aaccctgaag actgtatcag ttcagaagga cctgctagat gccaatgtca ctgctgtccg
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 2281 tgtcaagatt gaaagcatca atcaacagtt gctgcccctg ggaaacatct ctgacaatgt
 2341 agaccgaatc cgagagctca ttacgcaggc cagagatgct gcgaacaagg ttgcaattcc
 2401 catgaggttc aatggtaaat ctgggtgttg agtccgtctg ccaaagacc tagaagactt
 2461 gaagggatac acgtctctgt ctttgttcct ccaaagacca gacttaagag agaattggagg
 2521 cactgaggac atgtttgtaa tgtaccttgg aaacaaggat gcctccaagg actacatcgg
 2581 catggcgggt gtagatggcc agctgacgtg tgtctacaac ctgggggacc gagaagctga
 2641 agttcagatc gatcaggtcc tgacggagag tgagtctcag gaggcagtta tggaccgggt
 2701 gaagttccag agaataatc aatttgccaa gcttaattac accaaagaag ccacgtccaa
 2761 taaacccaaa gctcccgcgg tctacgacct ggagggtggc agtagcaaca cgctccttaa
 2821 tttggatccc gaggacgctg tgttttatgt cggaggttac ccaccgatt ttgaacttcc
 2881 tagcagactg cggttccctc catacaaagg ctgtatcgaa ctagatgacc tcaatgaaaa

2941 cgtttctaagc ttgtacaatt tcaagacaac tttcaatctc aacaccacgg aggtggagcc
 3001 ttgtaggagg agaaaggaag agtcagacaa aaattacttt gaaggtacag gctatgctcg
 3061 catccctact caaccaaagc ctcccttccc aaacttcata cagaccatcc agactactgt
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 3241 tcgagacacc atcaacgatg ggaaagatca ttcgatctta atcacaattg gaaaactaca
 3301 aaaacgcatg tggataaatg tgaacgaacg cagtgtacga atcgaagggg aaatatattga
 3361 tttcagcaca tattatttgg gcggaattcc aattgcaatc agagaaaagg ttaacatctc
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 3481 gaatgatact gtgggtgtaa ccaagaagtg ctcagaagac tggaagcttg tgcgaaccgc
 3541 ctcgttctcc agaggagggc agatgagctt tacaaacttg gacgtgccct cgactgaccg
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 3781 tgtatctgta ataagtgaca cctcaggtct ccgccttctc atcgatgacc aggtcctgag
 3841 aaggaaccag aggttcccta gcttctctaa cgcccagcag tcgctccgcc ttggaggagg
 3901 tcatttctgag ggttgatca gcaatgtttt agtccaaagg ttttcacaga gtccagaagt
 3961 cctggatctg gccagtaaag ctaccaagaa ggatgcatcc ctaggagggt gcagtttaaa
 4021 caagccacct tttcttatgt tgtttaaaag tcccaagaga tttaacaagg gccggatttt
 4081 caatgttaat cagctgatgc aagatgcacc tcaggccaca aggagcacag aggtctggca
 4141 agatgggagg tcctgcctac cacctctgaa caccaaggcc tctcacagag ccctgcagtt
 4201 tggagacagc cccaccagcc acttgctact caagcttccc caggaactgc tgaaacctag
 4261 gtcacagttt tcttttagaca tacagacaac ttcccccaa ggactggtgt tttacgcagg
 4321 caccaaggac tccttcctgg ctcttttatgt cgcagatggc cgtgttgtct ttgctttggg
 4381 ggcaggaggg aagaaactga gactcaggag caaggagaga taccatgacg ggaagtggca
 4441 cacggtggtg ttcggactaa atggaggaaa ggcacgcctg gttgtggatg ggctaagggc
 4501 ccaggaaggc agtttgctg gaaattctac catcagcccc agagaacagg tttacctag
 4561 gttgccgcta tcaagaaagc caaagagcct accccagcac agttttgtgg ggtgcctgag
 4621 agatttccag ttgaactcga aaccctgga ttctccttct gcgaggttg ggttatctcc
 4681 ctgcttgggt ggctcttttag agaaaggcat ttatttctcc caaggaggag gccatgtgat
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 4801 gagtctcact ggggtcttaa tacacgtcgg aagtcaatct ggacagcgct taagtgtgta
 4861 catggaggca ggaaaggta caacctctgt gagcagtgat gcaggaggaa gtgtgacatc
 4921 aattacaccg aagcagtctc tgtgtgatgg acagtggcac tcggtggcag tctccattaa
 4981 acagcgcac ctgcatctag aactggatac agacagtagc tacacagtcg caccactttc
 5041 cttctcacca aacagcacc gagggctact gcacgtcggg ggtgtcccag acaaattgaa
 5101 aatgcttaca ctccctgtgt ggaactcatt ttttggctgt ctgaagaata ttcaagtcaa
 5161 ccatgtccct gtcccatca cagaagccac agaagtccaa ggttctgtca gcctgaatgg
 5221 ctgcctgac cactaacct acacagcaag attcacctt ggag

FIG._2G-2

MPPTVRWSAWCTGWLWIFGAALGQCLGYGSEQQRVAFLOHPGQN
HLQASYMELRPSQGCRPGYYRDIKSFPAGRSVPCNCNGHSNRCQDGSQVCINCQHNTA
GEHCERCKRGYYGSAIHGSCRVCPCPHTNSFATGCAVDGGAVRCACKPGYTGAQCERC
APGYFGNPQKFGGSCQPCNCNSNGQFGTCDPLTGDCVSQEPKDGSPAEECDDCDSCVM
TLLNDLVPMGEELALVSKLQGLSVNTGSLEQIRHVEMQAKDLRNQLLGFRSAISSHG
SQMDGLEKELSHLYQEFETLQEKAVNSRKAQTLYNNIDTTIQNAKELDMKIKNILTN
VHILLKQIARPGGEGMDLPVGDWSRESAEARMLRELGRDFKKHLQEAQKMEACL
LLNRIRTWLESHQVENNGLLKNIRDSLNDYEAKLQDLRSVLQEAAAQKQATGLNHEN
EGVLGAIQRQMKEMDSLKKYLTEHLATADASLLQTNSSLQRMDSQKEYESLAAALNG
ARQELNDQVRELSRSGGKAPLVAEAEKHAQSLQELAKQLEEIKRNTSGDESVRVDA
ATAYESILNAIRAAEDAAGKADSASESAFQTVIKEDLPRRAKTLSSDSEELLNEAKMT
RKRLQQEINPALNSLQQTLKTVSVQKDLLDANVTAVRNDLRGIQRGDIDSVVSGAKSM
VRKANGITSEVLDGLSPIQTDLGRIKDSYGSTRHEDFNKALIDANNSVKKLTKKLPDL
FVKIESINQQLPLGNISDNVDRIRELITQARDAANKVAIPMRFNKGSGVEVRLPNDL
EDLKGYTSLSLFLQRPDLRENGGTEDMFVMYLGNKDASKDYIGMAVVDGQLTCVYNLG
DREAQVQIDQVLTESESQEAVM DRVKFQRIYQFAKLNYTKEATSNKPKAPAVYDLEGG
SSNTLLNLDPEDAVFYVGGYPPDFELPSRLRFPYKGCIELDDLNNVLSLYNFKTTF
NLNTTEVEPCRRRKEESDKNYFEGTGYARIPTQPNAPFPNFIQTIQTTVDRGLFFAE
NQDNFISLNIEDGNLMVRYKLNSEPPKEKGIRDITINDGKDHSILITIGKLQKRMWINV
NERSVRIEGEIFDFSTYYLGGIPIAIRERFNISTPAFQGCMMNLKKTSGVVRLNDTVG
VTKKCSSEDWKLVRTASFRRGGQMSFTNLDVPSTDRFQLSFGFQTFQPSGTLNHNQTRT
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NQRLPSFSNAQQSLRLGGGHFEGCISNVLVQRFSSQSPEVLDLASKSTKKDASLGGCSL
NKPPFLMLFKSPKRFNKGRIFNVNQLMQDAPQATRSTEAWQDGRSCLPPLNTKASHRA
LQFGDSPTSHLLLKLPQELLKPRSQFSLDIQTTSPKGLVIFYAGTKDSFLALYVADGRV
VFALGAGGKKLRLRSKERYHDGKWHTVVFGLNGGKARLVVDGLRAQEGSLPGNSTISP
REQVYLGLPLSRPKPSLPQHSFVGCLRDFQLNSKPLDSPSARFGVSPCLGGSLEKGIY
FSQGGGHVILANSVSLGPELKLTF SIRPRSLTGVLHVGSQSGQRLSVYMEAGKVTTTS
VSSDAGGSVTSITPKQSLCDGQWHSVAVSIKQIRILHLELDTDSSYTVAPLSFSPNSTR
GSLHVGGVPDKLMLTLPVWNSFFGCLKNIQVNHVPVPITEATEVQGSVSLNGCPDH

FIG._2H

1 atgtcagagg gcatttgctg ccgagctggc gcaactgtgca agagtggaca gcaagtttcc
 61 actgtggtgg tggtagatcc accaaaccat gccagtggaa tgagaactga atgcagccca
 121 ccagagcacg tgcacacgtg cattaaggaa cctcagaatc agctcttcca tgtggcttat
 181 atcttaataca aatttgcaaa ctctccccgc cctgatcttt ggatcctgga aagatctgta
 241 gactttggaa gcacctactc accatggcag tattttgctc attctagaag agattgtgta
 301 gaacagtttg ggcaagaagc aaacatggca attaccagc aggaccagat gctctgtgct
 361 acggagtatt cccgtatcgt gcctctggaa aatggcgaga ttgttgatc cttgataaat
 421 ggtcgtccag gtgcaaaaaa gtttgctttc tctgacactc tgagggagtt tactaaggca
 481 acaaacatcc gcttgcggtt tctgcgaacc aacaccctcc tcgggcatct tatttccaag
 541 gcagagcgag accccactgt cacgcgccgg tattattgca tggaagctga tgatgctctg
 601 ttctctgtcc tgcagtatta ttacagcata aaggatatca gtgttggtgg gcggtgtgtt
 661 tgcaacggcc atgctggaggc gtgcagtgtc gacaaccctg aaaagcagtt ccgatgcaaa
 721 tgccagcacc atacctgtgg agacacgtgt aaccgctgct gtgcagggtta caatcagagg
 781 cgctggcagc ctgctgggtca ggagcagcac aatgagtgtg aagcctgcaa ctgccatggg
 841 catgctgtgg actgctacta tgaccagac gtggagcacc agcaggcgag cttgaacagc
 901 aaaggcgtct acgcagggtg aggggtctgc atcaactgtc agcacaacac tgcaggcggtg
 961 aactgtgaaa agtgtgcgaa gggttacttc cggcccatg gagttccggt ggatgcaactg
 1021 catggatgca tcccttgcaag ctgtgaccca gaacgcgcag atgactgtga ccagggtcca
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 1141 tactataatt ttccattttg cttgagaatt ccagtctttc ccaactacac tccaagtcca
 1201 gaagatccag tggctggcaa tataaaaggc aaggatccag ggactctaga cccaccagtc
 1261 atagcaaatg gggcatatct tggagcttca agactagagc aaggagccac agggcagggc
 1321 agccctgctg agaggggtcac ccacaccaac tcatggctga gttcctcaat gcctatgctc
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 1561 atatgtgacg atcgtggcag gtgcctgtgc cggcctgggg ttgaggggtc ccagtgtgac
 1621 tcctgcccgt cgggctccta ttcatttccc atatgccaag cttgccagtg ttcgacgatt
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 4981 ctggaaagac tccacatccg gggcctccat ttcaccgaga cacagcggct caccttgggt
 5041 gaggtagggc tggaggaggc ctctgacacg ggaagcggac ccagggtca tcttgtggag
 5101 atgtgtgcct gccccctga ctacacaggt gactcatgcc agggttgtcg ccctggatac
 5161 tattgggaca aaaaagctt acctgtagga aggtgtgttc cctgcaattg caacggacat
 5221 tcaaatagat gccaggatgg ctccgggata tgcattaact gtcagcaca cacagctggg
 5281 gagcactgtg agcgttgcca agcagggtcac tatggaaatg ccatccacgg atcttgtagg
 5341 gtctgcccct gccctcatac caacagtttt gccaccggct gtgctgtgga tgggtggagct
 5401 gtgaggtgtg cctgcaaacc cggatacaca ggaacacagt gtgagaggtg tgcaccagga
 5461 tattttggga acccccagaa atttggaggt agctgccagc catgcaattg taacagcaat
 5521 ggccagtttag gtccttgcca ccccctaact ggagactgtg taaaccaaga acccaaagat
 5581 ggcagccctg cagaagaatg tgatgactgc gacagctgtg tgatgacgct cttaaagtac
 5641 ttggcctcca tgggtgagga actccgctg gtgaagtcaa agctgcagg gctgagtggtg
 5701 agcacgggtg ctctggaaca gatccggcac atggagacgc aggccaaagga cctgaggaac
 5761 cagctgcttg gcttccgttc tgccacctca agtcatgggt ccaaaatgga tgacctggaa
 5821 aaagagctga gtcatttgaa ccgggaattt gaaactctgc aagaaaaggc acaggtcaat

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5881 tccagaaaag cacaacatt atataacaac attgatcaga caatccaaag tgccaaagaa
 5941 ctggacatga agattaataa catcggtcag aatgtgcaca ttctcctgaa gcagatggcg
 6001 aggccaggtg gagaaggcac ggacttgcca gtgggtgact ggtccaggga gctggccgaa
 6061 gctcaacgca tgatgcgaga cctgcgaagc cgagacttta aaaagcacct ccaagaagca
 6121 gagggccgaga aaatggaagc ccagctctta ctgcaccgga tcaggacctg gctggaatcc
 6181 caccaggtgg agaacaacgg actgctaaag aatattcggg actccttaaa tgattatgaa
 6241 gacaaacttc aggacctacg ttccatcctc caggaggcag ctgccacggc aaagcaggcc
 6301 actggcatca accatgaaaa tgaggggggt ctcggagcca tccagagaca aatgaaagaa
 6361 atggattccc tgaagaatga cttaccaag tacctggcca cagccgactc ttccctgctg
 6421 cagaccaaca atctactgca gcagatggac aaaagccaga aggaatatga aagcttagct
 6481 gctgctttta atggagcaag acaggaactg agtgacagag tgcgagaact gtccagatcg
 6541 ggtggcaaag caccgctggg ggtggaggca gagaagcatg cacagtcttt acaggagctg
 6601 gcaaagcagc tggaagagat aaagagaaac accagcgggg atgagctggg gcgttggtgct
 6661 gtggatgctg ccacggccta tgagaacatc ctcaatgcca tcagagcagc agaggatgca
 6721 gccagcaagg ccaccagtgc ctccaagtct gccttccaaa cagtgataaa ggaagacctt
 6781 caaaaaagag ctaagaccct gagttctgac agcgaggaaac tgttaaatga agccaagatg
 6841 acacagaaaa ggctacagca agtcagtcca gctctcaaca gcctacaaca aaccctgaag
 6901 actgtatcag ttcagaagga cctgctagat gccaacctca ctggtgcccg tgatgatctt
 6961 catgggatac agagaggtga tatcgacagt gtggtgatcg gtgcaaagag catggtcagg
 7021 gaagccaacg gaataacaag cgaggtcctg gacgggctca accccatcca gacagatttg
 7081 ggaaggatta aggacagcta tgagagcgca cggcgtgaag acttcagcaa ggctctggtc
 7141 gatgccaata actcagtaaa gaaattaacc aggaagtgc ctgatctttt tatcaagatt
 7201 gaaagtatca accaacagtt gctgcccctg gggaacatct ctgacaatgt ggaccgaatc
 7261 cgagaactca ttcagcaggc cagagatgct gcaaacaagg tgggtattcc catttggtc
 7321 tag

FIG. 21-3

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MSEGICCRAGALCKSGQVSTVVVVDPPNHASGMRTESPPEHV
HTCIKEPQNQLFHVAYILIKFANSRPRDLWILERSVDFGSTYSPWQYFAHSRRDCVEQ
FGQEANMAITQDDQMLCVTEYSRIVPLENGEIVVSLINGRPGAKKFAFSDTLREFTKA
TNIRLRFLRTNTLLGHLISKAERDPTVTRRYCMEADDALFSVLQYYSIKDISVGGRR
CVCNGHAEACSAADNPEKQFRCECQHHTCGDTCNRCCAGYNQRRWQPAGQEQHNECEAC
NCHGHAVDCYYDPDVEHQQASLNSKGVYAGGGVCINCQHNTAGVNCEKCAKGYFRPHG
VPVDALHGCIPCSCDPERADDCDQSGSGHCHCKPNFSGDYCETCADGYYNFPFCLRIPV
FPNYTPSPEDPVAGNIKGKDPGTLDPPVIANGAYLGASRLEQGATGQGSPAERVTHTN
SWLSSSMPMLQVRAAIHEAKCYSLCFMYVEHSGTVPPALGSGYTGDSEPKTGTQAKR
GCDCNLEGLVLEICDDRGRCLCRPGVEGPQCDSCRSGSYSFPICQACQCSTIGSYFVP
CDPGNGQCDCCLPGITGRQCDRCLSGAYDFPYCQGKEAGSMLEARSSSEWVQLTSWRSL
GYCQCKQHVASPTCSVCKPLYWNLAKENPRGCSECQCHEAGTSLGIGECGQEDGDCSC
KAHVTGDACDTCEDGFFSLEKSNYFGCQGCQCDIGGALTMC SGPSGVCQCREHVEGK
QCQRPENNYFYPDLHMKYEVEDGTGPNRNLRFDFPLVFPEFSWRGYAPMTSVQVY
MSECVCLHCLFWGTFQNEVRVRLSVRQSSLSLFRIVLRYISPGTEAISGRITLYSS
QGDSDALQSRKITFPFSKEPAFVTVPGNGFAGPFSITPGTWIACIQVEGVLLDYLVL
PRDYEAFTLQVPVTEPCAHTGSPQDNCLLYQHLPLTAFSCTLACEARHFLLDGELRP
LAMRQPTPTHAMVDLSGREVELQLRLRVPQVGHYVVLLEYATEVEQLFVVVDVNLKSS
GSALAGQVNIYSCKYSIPCRSVVIDSLSRTAVHELLADADIQLKAHMAHFLLYHICII
PAEEFSTEYLRPQVHCIASYRQHANSASCVSLAHETPPTASILDATSRGLFSALPHE
PSSPADGVTLKAPQSQVTLKGLIPHLGRHVFIHFYQAEHPGFPTIVVNGGRQWSGS
FLASFCHLLGCRDQVISDGQVEFDISEAEVAVTVKIPDGKSLTLVRVLVPAENYDY
QILHKTTVDKSSEFISSCGGDSFYIDPQAASGFCKNSARSLVAFYHNGAIPCECDPAG
TAGHHCSPEGGQCPCRPNVIGRQCSRCATGYYGFYCKPCNCGRRLCEEVTGKCLCPP
HTVRPQCEVCEMNSFNHFPVAGCDVCNCSRKGTIEAAVSECDRDSGQCRCKPRVTGQQ
CDKCAPGFYQFPECVPCSCNRDGTETSVCDPETGACMCKENVEGPQCQLCREGSFYLD
PTNPKGCTKCFCFGVNTDCQSSHKQRAKFVDMMGWRLETADGVDVPVVSFNPGSNSMVA
DLQELPPSVHSASWVAPPSYLGDKVSSYGGYLYTHAKSFGLPGDMVLLGKQPDVQLTG
QHMSLIHKEPSDPRPDLRHHGRVQVIEGNFRHEGSSAPVSREELMTVLSRLERLHIRG
LHFTETQRLTLGEVGLLEASDTGSGPRAHLVEMCACPPDYTGDSQCGRPGYWDNKS
LPVGRCVPCNCNGHSNRCQDGSIGICINCQHNTAGEHCERCQAGHYGNAIHGSCRVCPC
PHTNSFATGCAVDGGAVRCACKPGYTGTQCERCAPGYFGNPQKFGGSCQPCNCNSNGQ
LGPCDPLTGDCVNQEPKDGSPAEECDDCSCVMTLLNDLASMGEELRLVSKSLQGLSV
STGALEQIRHMETQAKDLRNQLLGFRSATSSHGSRMDDLEKELSHLNREFETLQEKAQ
VNSRKAQTLYNNIDQTIQSAKELDMKIKNIVQNVHILLKQMARPGGEGTDLPVGDWSR
ELAEAQRMMRDLSRDFKHLQEAEEAEKMEAQLLLHRIRTWLESHQVENNGLLKNIRD
SLNDYEDKLQDLRSILQEAQAQKQATGINHENEGVLGAIQRQMKEMDSLKNDFTKYL
ATADSSLLQTNLLQQMDKSQKEYESLAAALNGARQELSDRVRELSRSGGKAPLVVEA
EKHAQSLQELAKQLEEIKRNTSGDELVRCAVDAATAYENILNAIRAAEDAASKATSAS
KSAFQTVIKEDLPKRAKTLSSDSEELLNEAKMTQKRLQQVSPALNSLQQTLLKTVSVQK
DLLDANLTVARDDLHGIQRGDIDSVVIGAKSMVREANGITSEVLDGLNPIQTDLGRIK
DSYESARREDFSKALVDANNSVKLTRKLPDLFIKIESINQQLPLGNISDNVDRIRE
LIQQARDAANKVGPIWL"

CSPLPKTQANH GALQFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGTKNSFMAL
 YLSKGRLVFALGTDGKKLRIKSKEKCN DGKWH TVVFGHDGEKGRLVVDGLRAREGSLPGNSTIS
 IRAPVYLGSPPSGKPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFGVSSCLGGPLEKGIYFSEEG
 GHVVL AHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTS
 VTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFP PASTQEPLHLGGAPANLTTLRI
 PVWKSFFGCLRN IHVNHIPVPVTEALEVQGPVSLNGCPDQ

FIG._3A

t gctcaccact tcccaagacc caggccaatc atggagccct ccagtttggg
 gacattccca ccagccactt gctattcaag cttcctcagg agctgctgaa
 acccagggtca cagtttgctg tggacatgca gacaacatcc tccagaggac
 tgggtgtttca cacgggcact aagaactcct ttatggctct ttatctttca
 aaaggacgtc tggctctttgc actggggaca gatgggaaaa aattgaggat
 caaaagcaag gagaaatgca atgatgggaa atggcacacg gtggtgtttg
 gccatgatgg ggaaaagggg cgcttggttg tggatggact gagggcccgg
 gagggaagtt tgcctggaaa ctccaccatc agcatcagag cgccagtta
 cctgggatca cctccatcag ggaaaccaa gagcctcccc acaaacagct
 ttgtgggatg cctgaagaac ttccagctgg attcaaaacc cttgtatacc
 ccttcttcaa gcttcggggt gtcttcctgc ttgggtggtc ctttgagaa
 aggcatttat ttctctgaag aaggagggtca tgcgtcttg gctcactctg
 tattgttggg gccagaattt aagcttggtt tcagcatccg cccaagaagt
 ctactggga tcctaataca catcggaagt cagcccggga agcacttatg
 tgtttacctg gaggcaggaa aggtcacggc ctctatggac agtggggcag
 gtgggacctc aacgtcggtc acaccaaagc agtctctgtg tgatggacag
 tggcactcgg tggcagtcac cataaaacaa cacatcctgc acctggaact
 ggacacagac agtagctaca cagctggaca gatccccttc ccacctgcca
 gcactcaaga gccactacac cttggagggtg ctccagccaa tttgacgaca
 ctgaggatcc ctgtgtggaa atcattcttt ggctgtctga ggaatattca
 tgtcaatcac atccctgtcc ctgtcactga agccttgga gtccaggggc
 ctgtcagttc gaatggttgt cctgaccagt aacccaagcc tatttcacag
 caaggaaatt caccttcaaa agcactgatt acccaatgca cctccctccc
 cagctcgaga tcattcttca attaggacac aaaccagaca ggtttaatag
 cgaatctaattttgaattct gaccatggat acccatcact ttggcattca
 gtgctacatg tgtattttat ataaaaatcc catttcttga agataaaaaa
 attgttattc aaattgttat gcacagaatg tttttggtaa tattaatttc
 cactaaaaaa ttaaatgtct

FIG._3B

CLGGPLEKGIYFSEEGGHVVLAAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHL CVYLEAG
 KVTASMDSGAGGTSTSVTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFP PASTQE
 PLHLGGAPANLTTLRIPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ

FIG._3C

tgc ttgggtgggc ctttggagaa aggcatttat ttctctgaag aaggaggtca
 tgtcgtcttg gctcactctg tattgttggg gccagaattt aagcttggtt
 tcagcatcgc cccaagaagt ctcactggga tcctaataca catcggaagt
 cagccccgga agcacttatg tgtttacctg gaggcaggaa aggtcacggc
 ctctatggac agtggggcag gtgggacctc aacgtcggtc acaccaaagc
 agtctctgtg tgatggacag tggcactcgg tggcagtcac cataaaacaa
 cacatcctgc acctggaact ggacacagac agtagctaca cagctggaca
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 ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa atcattcttt
 ggctgtctga ggaatattca tgtcaatcac atccctgtcc ctgtcactga
 agccttgga gtcagggggc ctgtcagtct gaatggttgt cctgaccagt
 aaccaagcc tatttcacag caaggaaatt caccttcaaa agcactgatt
 acccaatgca cctccctccc cagctcgaga tcattcttca attaggacac
 aaaccagaca ggtttaatag cgaatctaatt tttgaattct gaccatggat
 acccatcact ttggcattca gtgctacatg tgtattttat ataaaaatcc
 catttcttga agataaaaaa attgttattc aaattgttat gcacagaatg
 tttttggtaa tattaatttc cactaaaaaa ttaaattgtc

FIG._3D

PLPKTQANHGA

FIG._3E

cact tcccaagacc caggccaatc atggagc

FIG._3F

SHLLFKLPQELLKPRS

FIG._3G

gccactt gctattcaag cttcctcagg agctgctgaa acccaggtca

FIG._3H

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TSSRGLVFHTGTKNSFMALYLSKGRLVFALGTDGKKLRIKSKEKCNDGKWHTVVFGHDGEKGRL
VVDGLRAREGSLPGNSTISIRAPVYLGSPSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFG
VSS

FIG._3I

gacaacatcc tccagaggac tgggtgtttca cacggggcact aagaactcct
ttatggctct ttatctttca aaaggacgtc tggctctttgc actgggggaca
gatgggaaaa aattgaggat caaaagcaag gagaaatgca atgatgggaa
atggcacacg gtgggtgtttg gccatgatgg ggaaaagggg cgcttggttg
tggatggact gagggcccgg gaggggaagt tgcctggaaa ctccaccatc
agcatcagag cgccagttta cctgggatca cctccatcag ggaaaccaa
gagcctcccc acaaacagct ttgtgggatg cctgaagaac tttcagctgg
attcaaaacc cttgtatacc ctttcttcaa gcttcggggg gtcttcct

FIG._3J

TSSRGLVFHTGTKNSFMALYLSKGRLVFALGTDGKKLRIKSKEKCNDGKWHTVVFGHDGEKGRL
VVDGLRAREGSLPGNSTISIRAPVYLGSPSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFG
VSSCLGGPLEKGIYFSEEGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLVCYL
EAGKVTASMSGAGGTSTSVTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPAS
TQEPLHLGGAPANLTTLRIPVWKSFFGCLRNHVNHIPVPVTEALEVQGPVSLNGCPDQ

FIG._3K

catcc tccagaggac tgggtgtttca cacggggcact aagaactcct ttatggctct
ttatctttca aaaggacgtc tggctctttgc actgggggaca gatgggaaaa
aattgaggat caaaagcaag gagaaatgca atgatgggaa atggcacacg
gtgggtgtttg gccatgatgg ggaaaagggg cgcttggttg tggatggact
gagggcccgg gaggggaagt tgcctggaaa ctccaccatc agcatcagag
cgccagttta cctgggatca cctccatcag ggaaaccaa gagcctcccc
acaaacagct ttgtgggatg cctgaagaac tttcagctgg attcaaaacc
cttgtatacc ctttcttcaa gcttcggggg gtcttcctgc ttgggtgggc
ctttggagaa aggcatttat ttctctgaag aaggagggtca tgtcgtcttg
gctcactctg tattgttggg gccagaattt aagcttggtt tcagcatccg
cccaagaagt ctactggga tcctaataca catcggaagt cagcccggga
agcacttatg tgtttacctg gaggcaggaa aggtcacggc ctctatggac
agtggggcag gtgggacctc aacgtcgggc acaccaaagc agtctctgtg
tgatggacag tggcactcgg tggcagtcac cataaaacaa cacatcctgc
acctggaact ggacacagac agtagctaca cagctggaca gatccccctc
ccacctgcca gactcaaga gccactacac cttggagggtg ctccagccaa
tttgacgaca ctgaggatcc ctgtgtggaa atcattcttt ggctgtctga
ggaatattca tgtcaatcac atccctgtcc ctgtcactga agccttgga
gtccaggggc ctgtcagtct gaatgggtgt



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FKLVFSIRPRSLTGILIHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTSVTPKQSLCDGQWHS
VAVTIKQHILHLELDTDSSYTAGQIPFP PASTQEPLHLGGAPANLTTLRIPVWKSFFGCLRNIH
VNHIPVPVTEALEVQGPVSLNGCPDQ

FIG._3M

tt aagcttgttt tcagcatccg cccaagaagt ctactggga tcctaataca
catcggaagt cagcccggga agcacttatg tgtttacctg gaggcaggaa
aggtcacggc ctctatggac agtggggcag gtgggacctc aacgtcggtc
acaccaaagc agtctctgtg tgatggacag tggcactcgg tggcagtcac
cataaaacaa cacatcctgc acctggaact ggacacagac agtagctaca
cagctggaca gatccccttc ccacctgcca gcactcaaga gccactacac
cttgagggtg ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa
atcattcttt ggctgtctga ggaatattca tgtcaatcac atccctgtcc
ctgtcactga agccttgga gtcaggggc ctgtcagtct gaatggttgt
cctgaccagt

FIG._3N

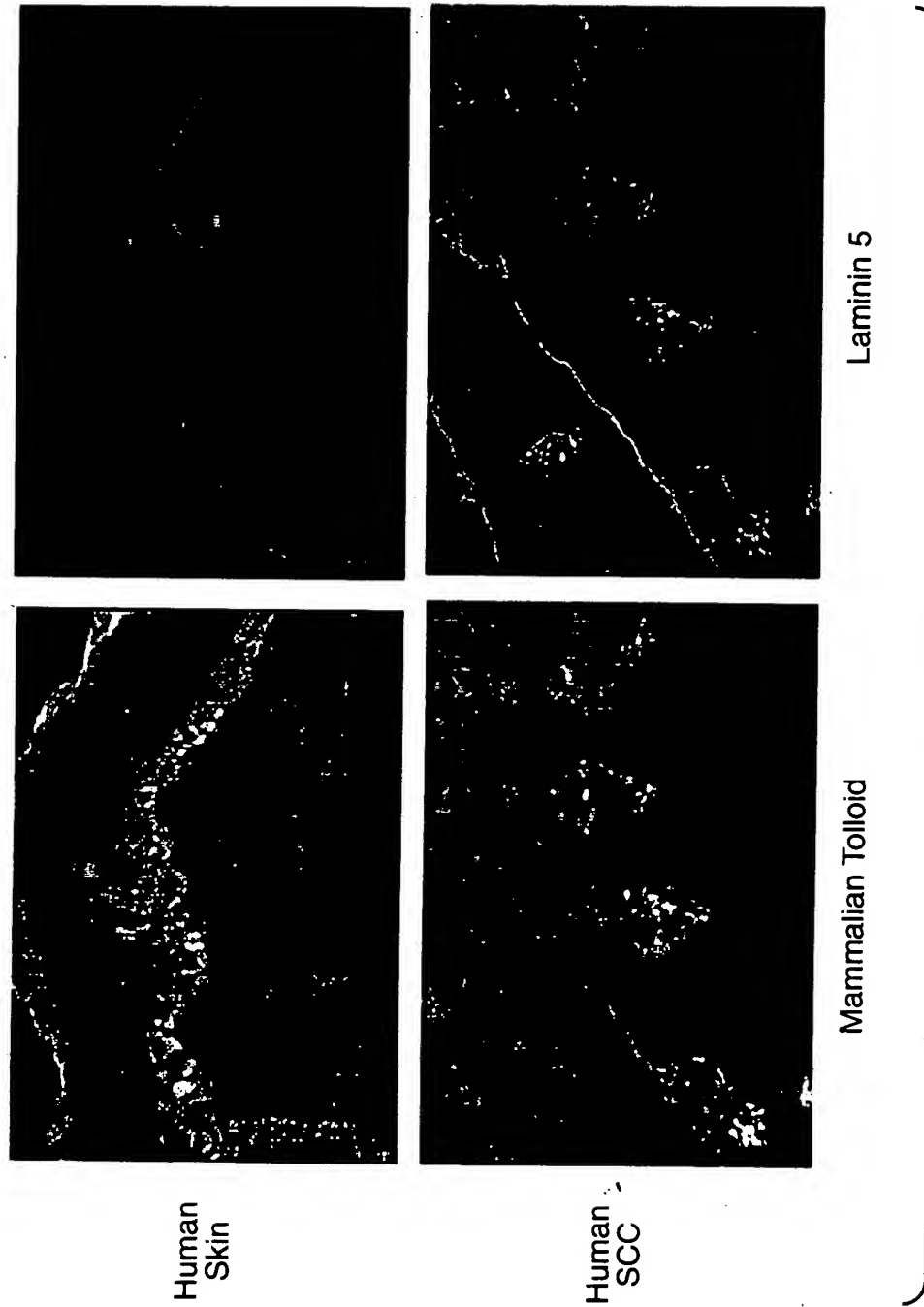
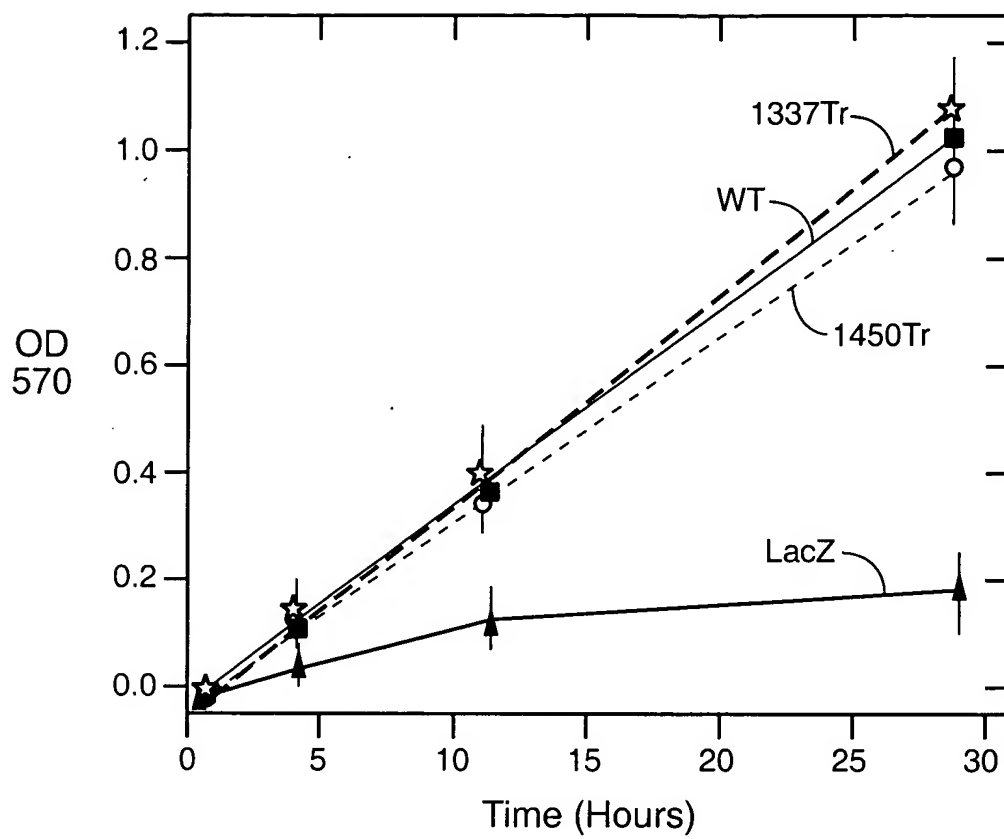
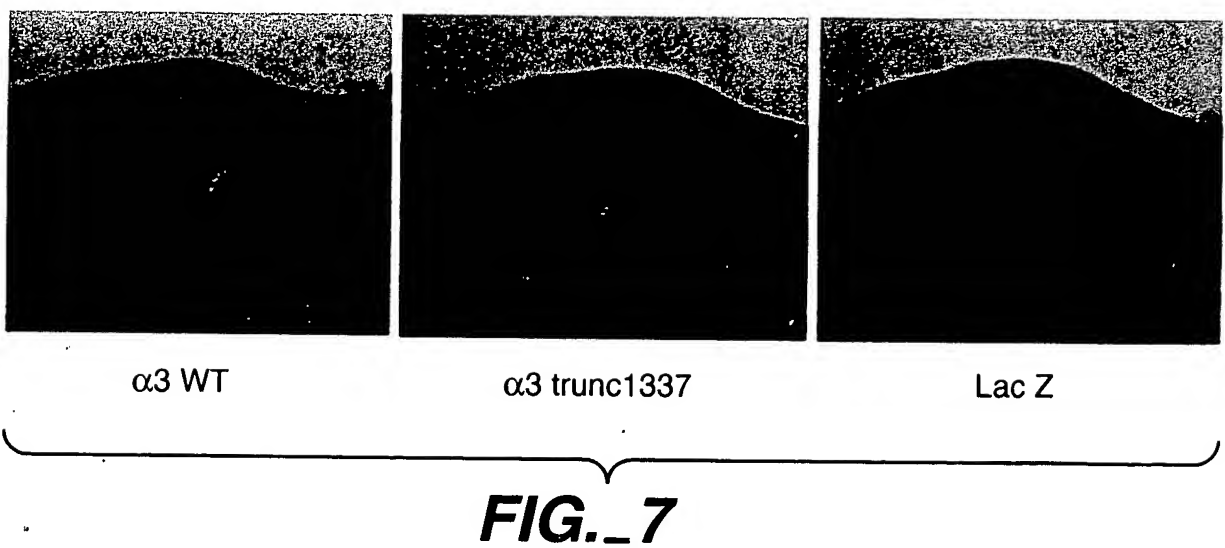
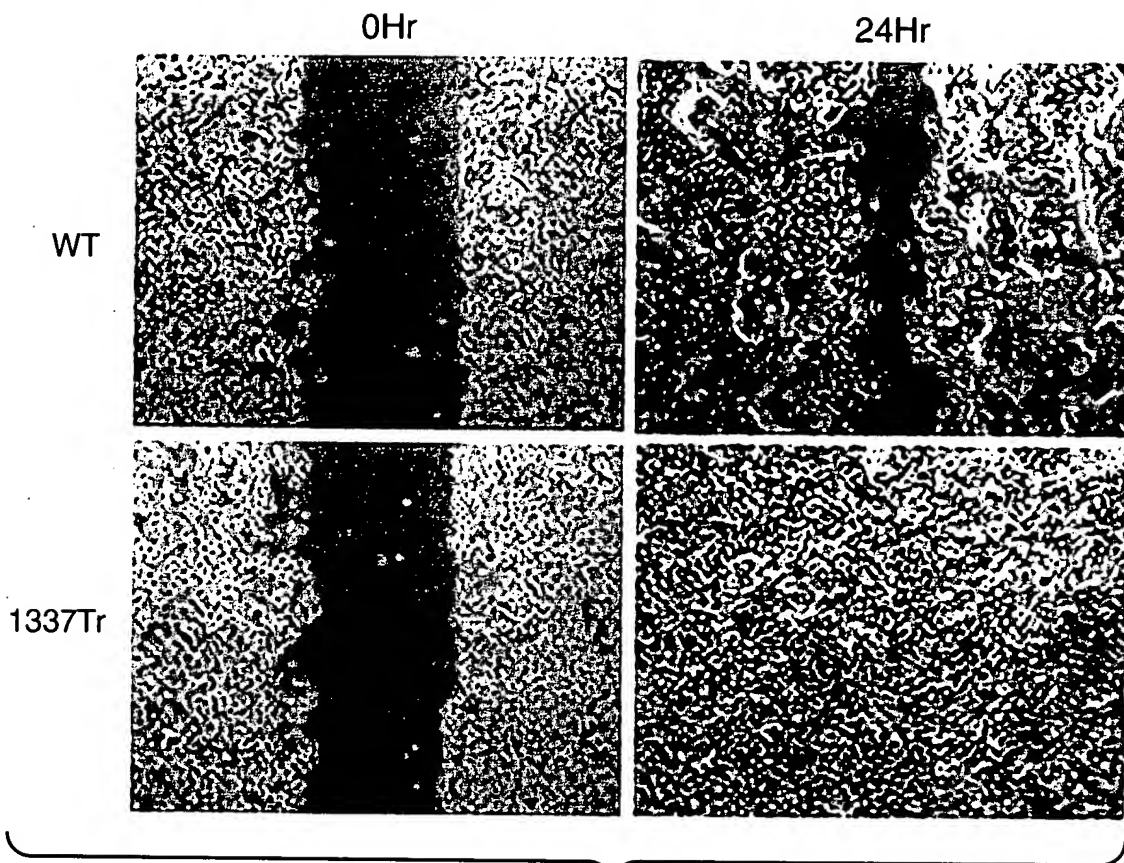


FIG._4

**FIG._5**

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